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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/618,519	07/11/2003	James Owen	BEAS-01361US0	6588

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EXAMINER	
ALAM, SHAHID AL	

ART UNIT	PAPER NUMBER
2162	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/618,519	OWEN ET AL.	
	Examiner	Art Unit	
	Shahid Al Alam	2162	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 October 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1, 2, 4 – 8, 25 – 30 and 32 – 37* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 2, 4 – 8, 25 – 30 and 32 – 37* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *11282007*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Applicant's arguments with respect to claims 1, 2, 4 – 8, 25 – 30 and 32 – 37 have been fully considered but they are not persuasive.

With respect to applicant's argument, Van Huben teaches a **virtual DATA REPOSITORY** comprised of one or more physical **repositories**. The underlying repositories can be a simple file management system such as the Distributed File System (DFS) or a simple **directory structure** organized on a hard or floppy disk. A **directory structure** can be established using the Library, Level and Data Type as **the branches of the directory tree**. Files in the Data Repository are tracked using pointers in the Control Repository documents.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-2, 4-8, 25-30, and 32-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,325,594 issued to Gary Van Huben et al. ("Van Huben") in view of US Patent No. 6,857,012 issued to Siew Sim et al. ("Sim").

With respect to claim 1, Van Huben teaches a storage medium for storing data for access by an application program being executed on a computer system (see abstract), comprising:

a data structure stored in said memory, the data structure including or referring to: a name (figure 3B; C11:L13-34; figure 11 B; C23:L41-51);

a content repository identifier (C14:115-18);

a property (figure 3B; C10:L39-56);

a property definition, path (figure 3B; C10:L39-56);

a reference to a parent data structure (figure 4A; C11:L1-12);

wherein the data structure is logically part of a virtual content repository (VCR) (Figure 2 and Figure 3B), and wherein the VCR represents, using an API (column 9, lines 46 – 48), a plurality of content repositories logically as one single content repository encompassing the plurality of content repositories from the application program's standpoint (Figures 4A and 4B);

wherein the plurality of content repositories plug into the VCR via a service provider interface (SPI) (column 6, lines 17 – 28);

wherein the API and the SPI share a content model that represents content of the plurality of content repositories as a hierarchical namespace of nodes (column 15, line 57 – column 16, lines 5, 47 – 53);

wherein the path uniquely specifies the data structure's location in the VCR (C14:L9-30) and wherein a content repository is a searchable data store (see abstract).

Van Huben does not explicitly indicate VCR represents plurality of content repositories logically as one single content repository as claimed.

Sim discloses claimed VCR represents plurality of content repositories logically as one single content repository. Sim teaches stations of SCDN are organized in a logical virtual tree structure in which each node in the tree has a set of attributes. Thus, each Station has an attribute set that is stored in the node and can be represented in any convenient data structure, e.g., the attribute set can be represented as an attribute bitmap. Each Station (i.e., node) also c0ntains a representation of the rolled up attribute set of each of the station's child-Stations. This representation is called the "Rolled Up Set of Attributes" and any convenient data structure can be used for it, e.g., a "Rolled Up Bitmap", which may be the defined as the "binary OR" combination of all rolled up attribute bitmaps from the child-Stations. The distribution servers within a Distribution Server Cluster use the attribute bitmap to distribute and route portions of large payload files and they use the • aggregated rolled-up attribute bitmap to terminate unnecessary propagation of messages. One of the Stations in an SCDN is designated the "Central Station". The Central Station holds an attribute database table that matches text strings

to bit positions, e.g., a reference table. A data repository for all content but may contain some or all the content (see col. 25, lines 27-48, Sim).

It would have been obvious to one ordinary skill in the data processing art at the time of the present invention to combine the cited references because VCR represents a plurality content repositories logically as one single content repository of Sim's teaching would have allowed Van Huben' system to optimized, so that large payload files can be distributed across existing networks (including the Internet and corporate intranets) using a transport layer network overlay to push content to the edge of the network as suggested by Sim's at col. 9, lines 9-12.

As to claim 2, Van Huben teaches the content repository identifier comprises: a repository name (C14:L30-40); and a content identifier that is unique for the content repository (C14:L15-20).

As to claim 4, Van Huben teaches a property is an association between a name and at least one value (C10:L39-56; C17:L5-13); and wherein the at least one value can be stored in one of the at least one content repositories (C10:L39-56; C17:L5-13).

As to claim 5, Van Huben teaches the at least one value can be a text string, a number, an image, an audio/visual presentation, or binary data (C10:L39-56; being a computer implemented data array the data contained within must be represented as binary data).

As to claim 6, Van Huben teaches the property definition can specify at least one of the following for the property: property choices; a reference; a data type; whether the property is mandatory; whether the property is multi-valued; whether the property is

primary; whether the property is read-only; and whether the property is restricted (C10:L54-55).

As to claim 7, Van Huben teaches the data structure is hierarchically related to other data structures and the at least one content repository (figure 4A; C11:L1-12).

As to claim 8, Van Huben teaches the data structure is hierarchically inferior to the at least one content repository (figure 4A; C11:L1-12).

With respect to claim 25, Van Huben teaches storage medium for storing data for access by an application program being executed on a computer system, comprising:

a first object storage medium to provide a first group of services related to interacting with a hierarchical namespace (figure 2, element 24; C13:L47- 49);

a second object storage medium to provide a second group of services related to associating information with the first object (figure 2, elements 23 & 24; C13:L34-43);

a third object storage medium to provide a third group of services related to describing attributes of the second object (figure 2, elements 22 & 23; C13:L17-30);

wherein the first object is logically part of a virtual content repository (VCR) and includes, ..., and wherein the VCR represents, using an API (column 9, lines 46 – 48), a plurality of content repositories logically as one single content repository encompassing the plurality of content repositories from the application program's standpoint (Figures 4A and 4B);

wherein the plurality of content repositories plug into the VCR via a service provider interface (SPI) (column 6, lines 17 – 28);

wherein the API and the SPI share a content model that represents content of the plurality of content repositories as a hierarchical namespace of nodes (column 15, line 57 – column 16, lines 5, 47 – 53);

wherein content repository is a searchable data store (see abstract).

Van Huben does not explicitly indicate VCR represents plurality of content repositories logically as one single content repository as claimed.

Sim teaches stations of SCDN are organized in a logical virtual tree structure in which each node in the tree has a set of attributes. Thus, each Station has an attribute set that is stored in the node and can be represented in any convenient data structure, e.g., the attribute set can be represented as an attribute bitmap. Each Station (i.e., node) also contains a representation of the rolled up attribute set of each of the station's child-Stations. This representation is called the "Rolled Up Set of Attributes" and any convenient data structure can be used for it, e.g., a "Rolled Up Bitmap", which may be the defined as the "binary OR" combination of all rolled up attribute bitmaps from the child-Stations. The distribution servers within a Distribution Server Cluster use the attribute bitmap to distribute and route portions of large payload files and they use the aggregated rolled-up attribute bitmap to terminate unnecessary propagation of messages. One of the Stations in an SCDN is designated the "Central Station". The Central Station holds an attribute database table that matches text strings to bit positions, e.g., a reference table. A data repository for all content but may contain some or all the content (see col. 25, lines 27-48, Sim).

It would have been obvious to one ordinary skill in the data processing art at the time of the present invention to combine the cited references because VCR represents a plurality content repositories logically as one single content repository of Sim's teaching would have allowed Van Huben' system to optimized, so that large payload files can be distributed across existing networks (including the Internet and corporate intranets) using a transport layer network overlay to push content to the edge of the network as suggested by Sim's at col. 9, lines 9-12.

As to claim 26, Van Huben teaches the first group of services comprises: first functions that enable associating the first object with a location in the namespace (C12:L66-C13: L16; C13:L47-54).

As to claim 27, Van Huben teaches the second group of services comprises: second functions that enable creating, reading, updating and deleting the information (C13:L47-53).

As to claim 28, Van Huben teaches the third group of services comprises: third functions that enable specifying at least one of the following for the second object: information choices; a reference; an information type; whether the information is mandatory; whether the information is multi- valued; whether the information is primary; whether the information is read-only; and whether the information is restricted (C13:L17-22).

As to claim 29, Van Huben teaches a fourth object to specify a location of the first object in the namespace (C14:L9-18).

As to claim 30, Van Huben teaches the fourth object includes: a content repository name (C14:1_9-18); and a content identifier that is unique for the content repository (C14:L9-18).

As to claim 32, Van Huben teaches a fifth object to provide a fifth set of services related to searching the VCR (figure 2, element 20; C11 :L45-49).

As to claim 33, Van Huben teaches the second object associates a name and at least one value (C14:L15-18); and wherein the at least one value can be stored in one of the at least one content repository (C13:L44-53).

As to claim 34, Van Huben teaches the at least one value can be a text string, a number, an image, an audio/visual presentation, or binary data (C14:L40-48).

As to claim 35, Van Huben teaches the first object is hierarchically related to other objects and the at least one content repository (C11:L1-12; C13:L44-46).

As to claim 36, Van Huben teaches there is no second object (figure 2, element 21 ; by stating that there is no second object the applicant is also removing the functionality of the third object, thus the whole system seems be represented as one object).

As to claim 37, Van Huben teaches a sixth object to provide a sixth group of services related to configuring the VCR (figure 2, element 20; C11:L45-49).

Contact Information

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shahid Al Alam whose telephone number is (571) 272-4030. The examiner can normally be reached on Monday-Thursday 8:00 A.M. - 4:00 P.M. .

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Breene can be reached on (571) 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Shahid Al Alam
Primary Examiner
Art Unit 2162

January 21, 2008